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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,134	07/08/2003	Kenichi Sakamoto	501.37526CX1	5988

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EXAMINER

LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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11/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/614,134	Applicant(s) SAKAMOTO ET AL.	
	Examiner Dmitry Levitan	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007 and 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Amendments, filed 10/09/07 and 10/05/07, have been entered. Claims 2-19 and 21-23 remain pending.

Claim Rejections - 35 USC § 103

1. Claims 2-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie (US 6,035,105) in view of Admitted Prior Art (Use of IPsec protocol in IP networks, Background of the invention, pages 1:14 -2:7).

2. Regarding claims 2, 5, 6, 9 and 10, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 and 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a Virtual Private Network/VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

A packet generating unit/router which generates a second VPN identifier used to compose a second VPN in the second network based on the destination address and information in the first VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second header by changing tag 107 as shown on Fig. 2 and 3:49-67, changing the first VLAN identifier to a second VLAN identifier 1:59-63); and

A transmitter, which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 changing VLAN identifier 1:59-63).

McCloghrie teaches the networks as LANs utilizing the packets with MAC address (disclosed on 4:33-44).

McCloghrie does not teach implementing his method in IP environment, wherein the packets are IP packets, comprising IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using IPsec for identifying packets belonging to own company network to protect the VPN from the attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP addresses because IP addresses are essential for the IP network operation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IPsec protocol, comprising IP packets with IP addresses of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks, like Internet.

In addition, regarding claim 6, McCloghrie teaches receiving the packet (3:7-14).

3. Regarding claims 3, 7 and 11, McCloghrie teaches replacing the first identifier with the second identifier (VLAN identifier replacement process 1:59-63).

4. Regarding claims 4, 8 and 12, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to the destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

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5. Regarding claims 13, 16, 17 and 21, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a first VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

An index and packet generating unit/router which generates a second VPN identifier used to compose a second VPN network in the second network based on the index, as the index is based on the destination address and the first identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second VLAN identifier by changing index/tag 107 as shown on Fig. 2 and 3:49-67, based on the index/tag in table 206 as shown on Fig. 2 and 5:2-33, according to the VLAN identifier replacement process 1:59-63); and

A transmitter which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14).

McCloghrie teaches networks as LANs utilizing the packets with MAC address (4:33-44).

McCloghrie does not teach networks implementing IP and the IP packets including IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using IPsec for identifying packets belonging to own company network to protect the VPN from the attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP addresses because IP addresses are essential for the operation of IP network).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks.

6. Regarding claims 15, 19 and 23, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

7. Regarding claims 14, 18 and 22, McCloghrie teaches replacing the index with a second VPN identifier (removing an identifier/tag of the first network with appropriate encapsulation/header and identifier for the second network 1:50-67 and 2:1-6).

Response to Arguments

1. Applicant's arguments with respect to claim 2-19 and 21-23 have been considered but are moot in view of the new ground(s) of rejection.

On pages 9 and 103 of the Response, Applicant argues that recited claims are patentable.

Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Applicant admits common knowledge of techniques of using IPsec protocol to make up a Virtual Private network.

In addition, Kent at Security Architecture for the Internet Protocol, RFC 2401, November 1998, teaches using IP headers for the protocol routines on page 9.

Therefore, implementing a known protocol techniques in the method of McCloghrie would have been obvious to one of ordinary skill in the art at the time the invention was made.

The Supreme Court opinion in KSR case (04-1350, U.S. Apr. 30, 2007), rejected the rigid application of the test, requiring "teaching, suggesting or motivation" in the prior art which would lead one of the ordinary skills in the art to combine the prior art teachings.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks.

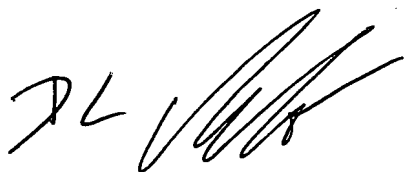
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'DL' followed by a stylized, cursive signature.

Dmitry Levitan
Primary Examiner
Art Unit 2616

DMITRY LEVITAN
PRIMARY EXAMINER